Safety

Variant: [No Variations]

1/23/2019
Version P1

DESIGN CONSIDERATIONS

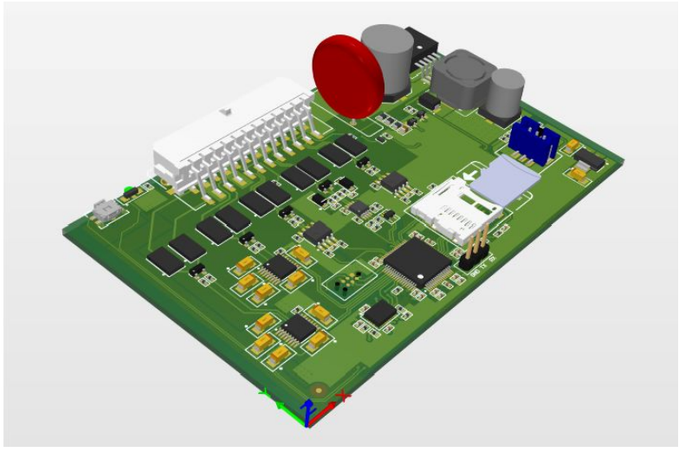
DESIGN NOTE:
Example text for informational design notes.

DESIGN NOTE:
Example text for cautionary design notes.

DESIGN NOTE:
Example text for debug notes.

DESIGN NOTE:
Example text for critical design notes.

LAYOUT NOTE:
Example text for critical layout guidelines.



TRUCKS CONTROL	Trucks Control	https://truckscontrol.com.br
	Title: Safety	Variants: [No Variations]
Page Contents: [01] - COVER PAGE.SchDoc		Checked by: Alex Batista
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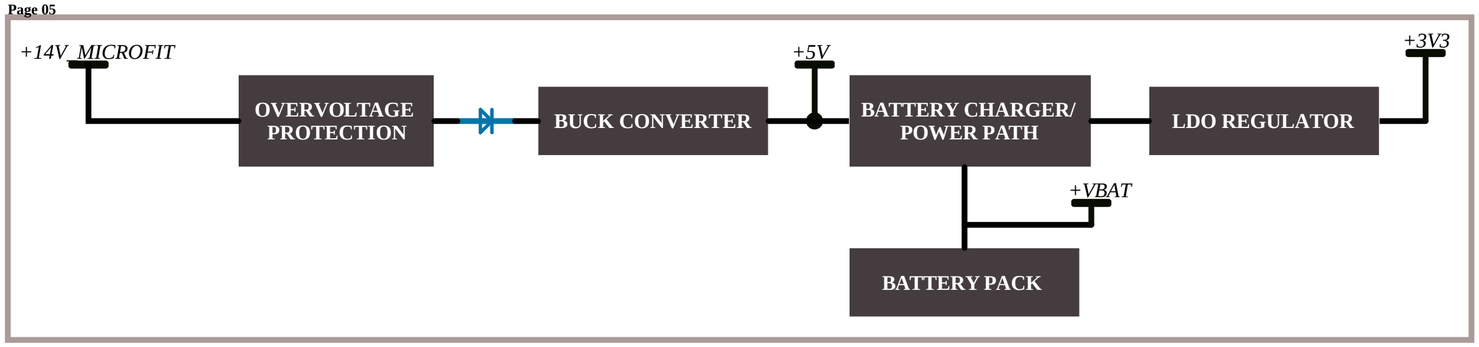
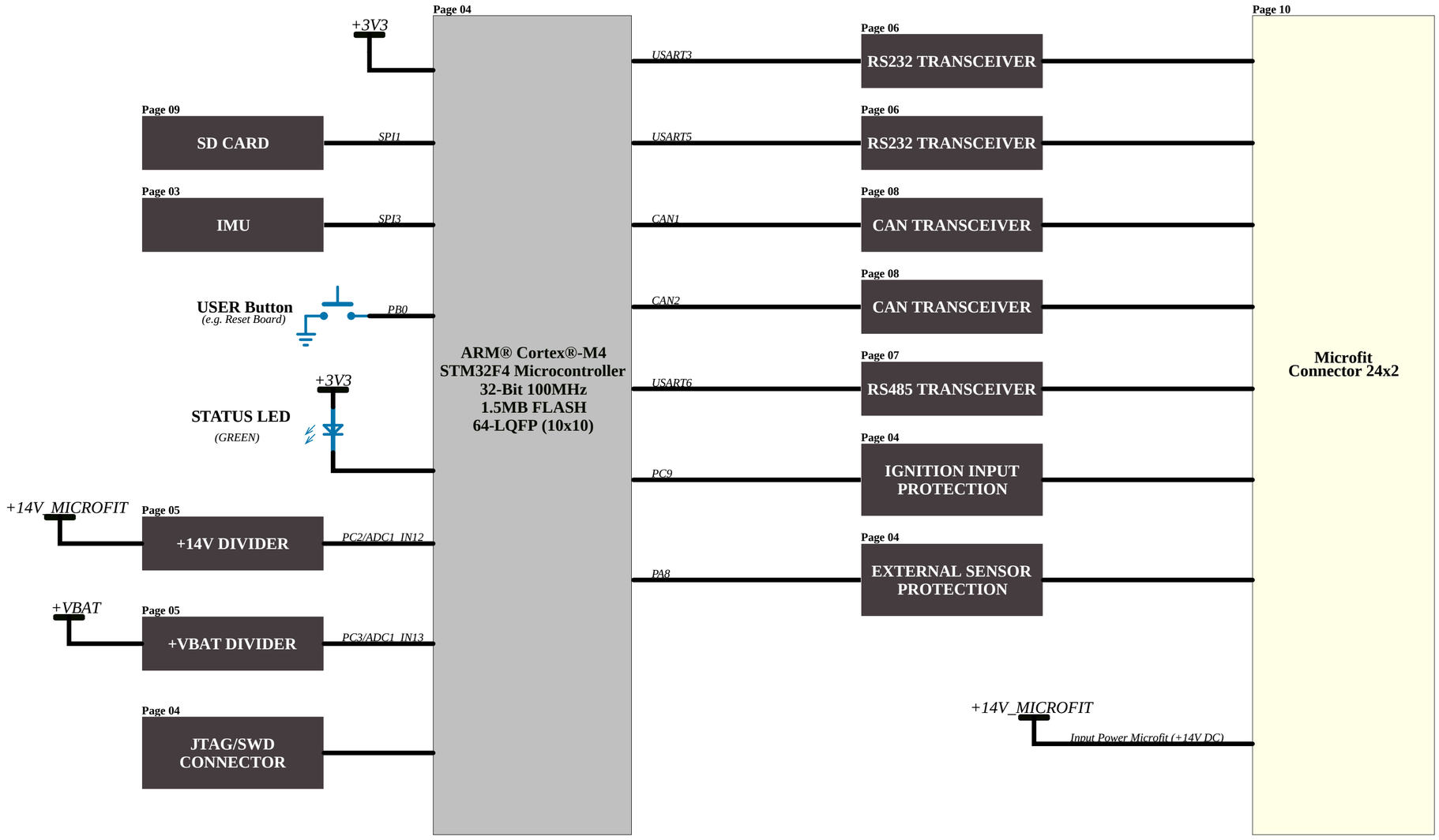
Safety
(Block Diagram)





Trucks Control		https://truckscontrol.com.br	
Title:	Safety	Variants:	[No Variations]
Page Contents:	[02] - BLOCK DIAGRAM.SchDoc	Checked by:	Alex Batista
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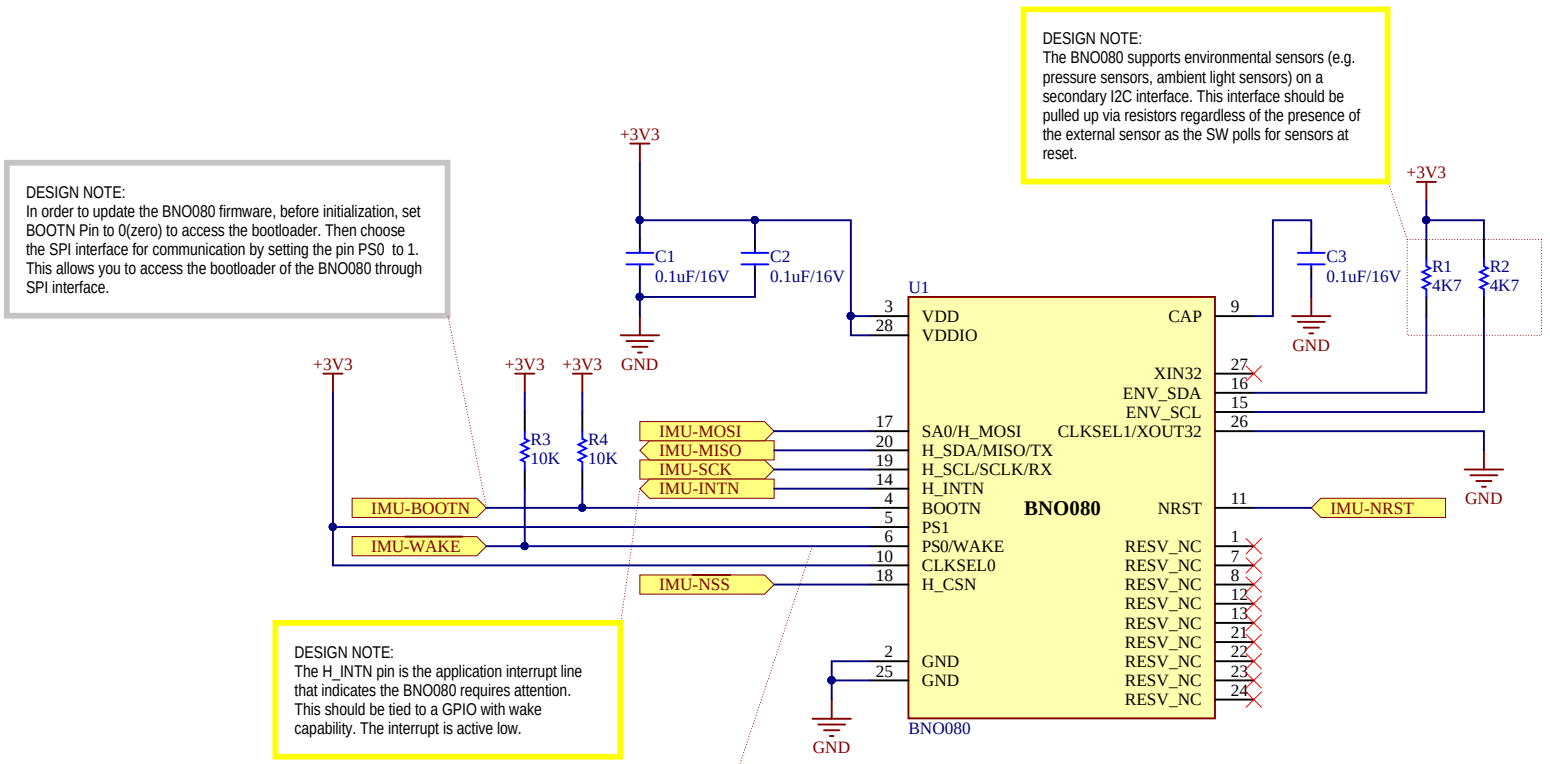
IMU



TRUCKS CONTROL	Trucks Control		https://truckscontrol.com.br
	Title: Safety	Variants:	[No Variations]
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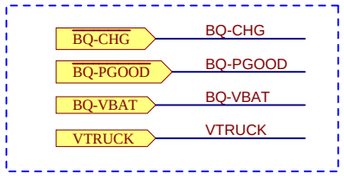
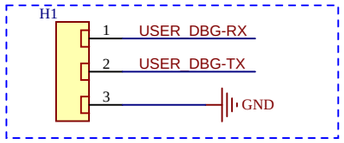
MICROCONTROLLER

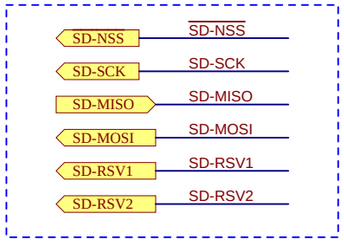
PINOUT BATTERY



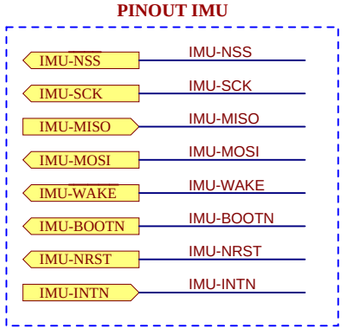
PINOUT DEBUG USER



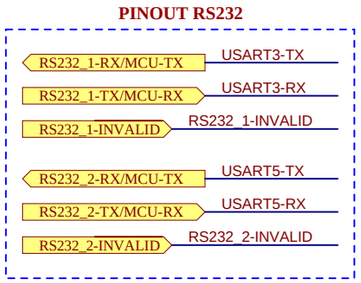
PINOUT SD CARD



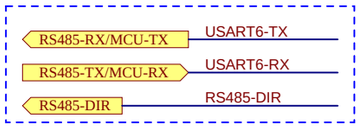
PINOUT IMU



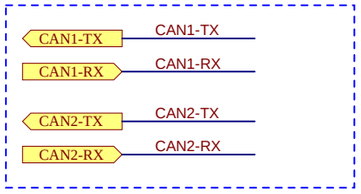
PINOUT RS232

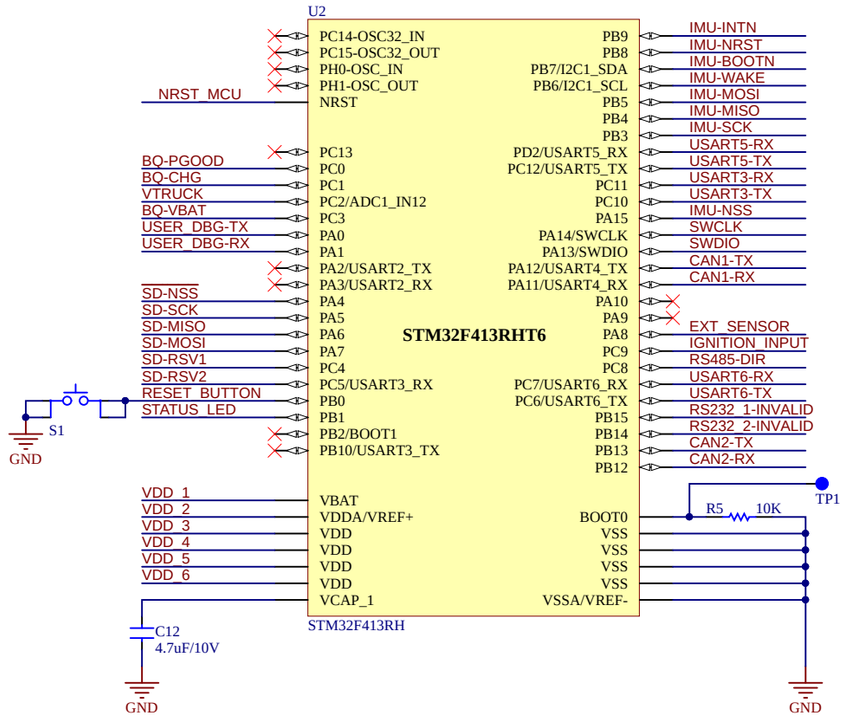


PINOUT RS485

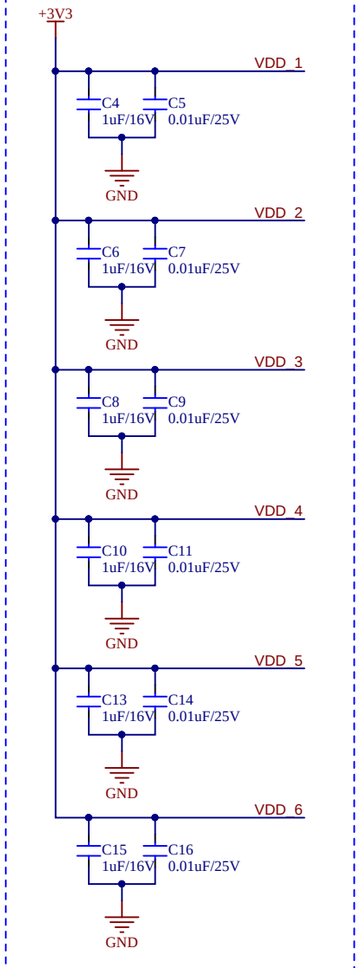


PINOUT CAN

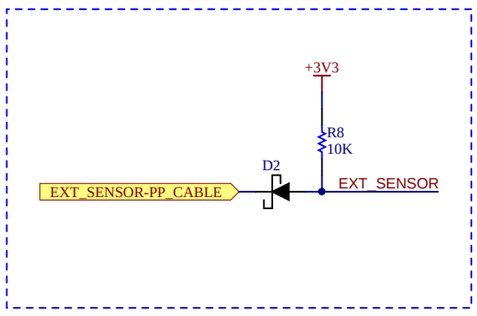




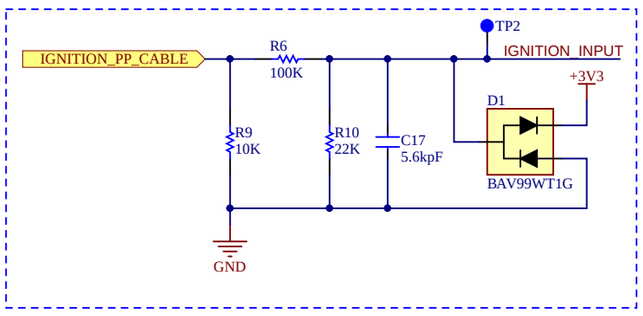
DECOUPLING CAPACITORS



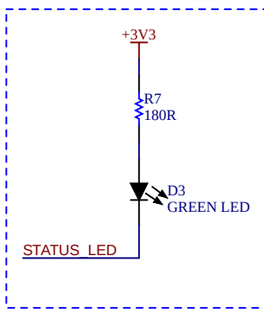
PINOUT EXTERNAL SENSOR



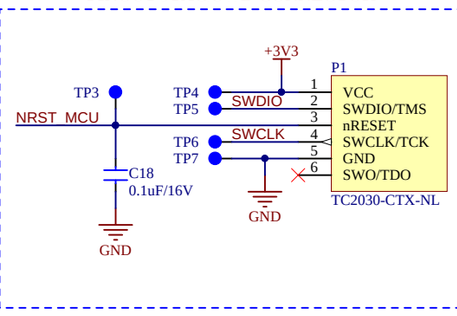
PINOUT IGNITION INPUT PROTECTION



PINOUT STATUS LED



PINOUT JTAG/SWD CONNECTOR



Trucks Control		https://truckscontrol.com.br	
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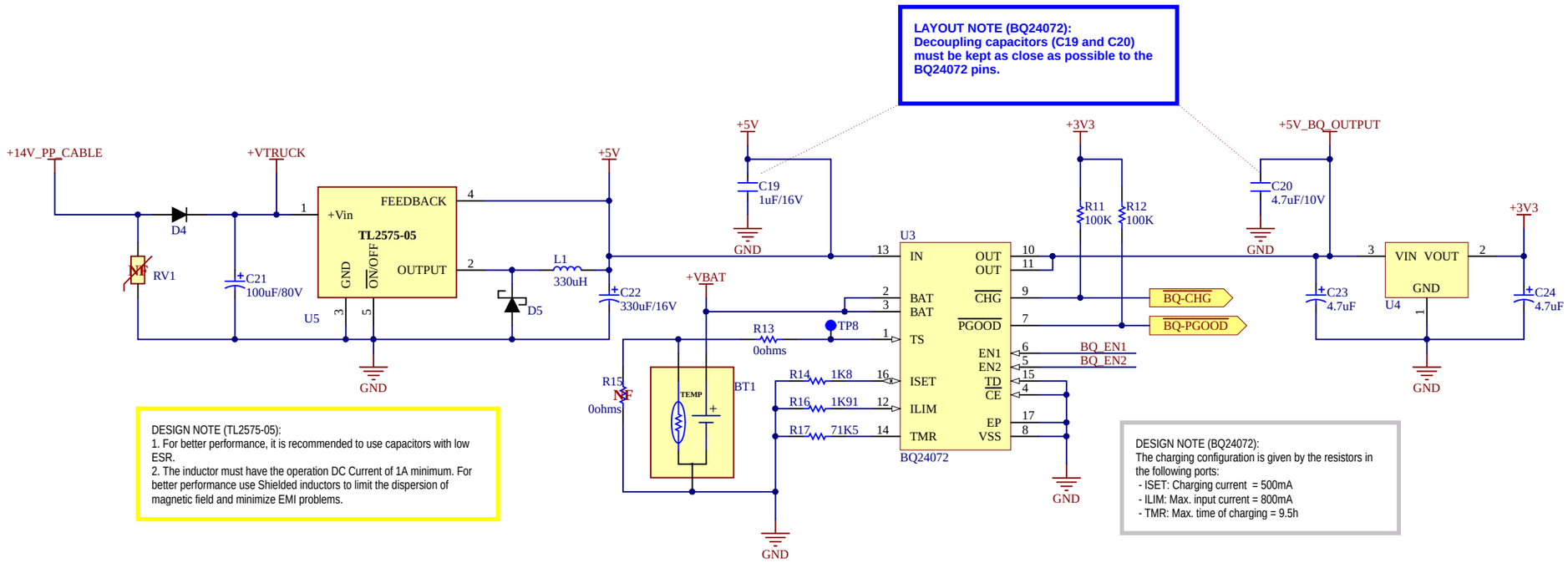
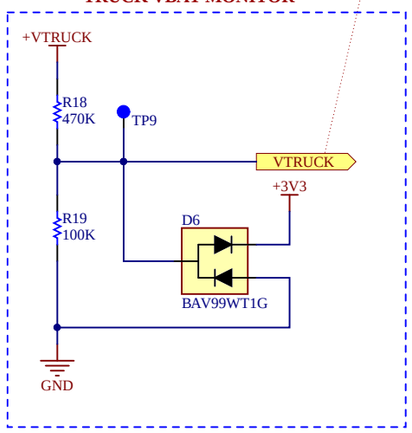
POWER SUPPLY



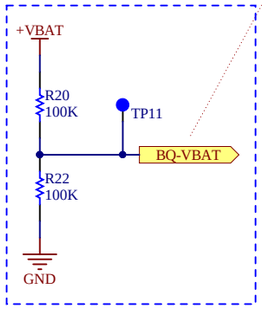
DESIGN NOTE:
VTRUCK must be connected to a ADC port.

TRUCK VBAT MONITOR

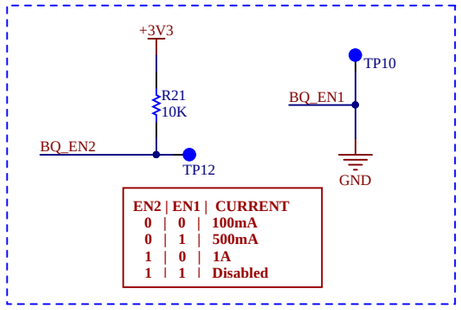


DESIGN NOTE (BQ24072):
BQ_VBAT must be connected to a ADC port.

VBAT MONITOR



CHARGING CURRENT CONFIGURATION



EN2	EN1	CURRENT
0	0	100mA
0	1	500mA
1	0	1A
1	1	Disabled

Trucks Control		https://truckscontrol.com.br
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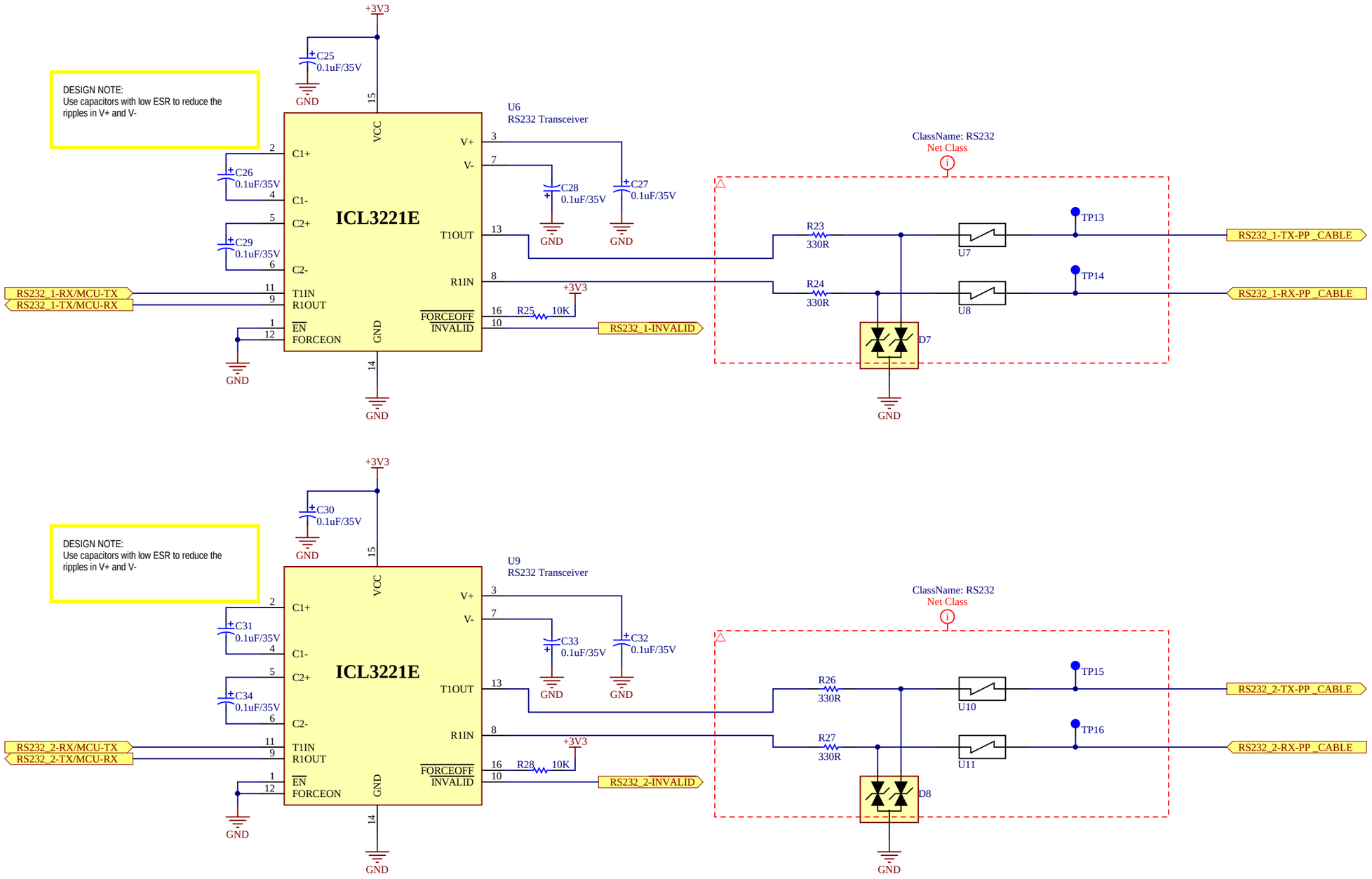
RS232 INTERFACE



TRUCKS CONTROL	Trucks Control		https://truckscontrol.com.br
	Title: Safety	Variants:	[No Variations]
Page Contents: [06] - RS232 INTERFACE.SchDoc		Checked by:	Alex Batista
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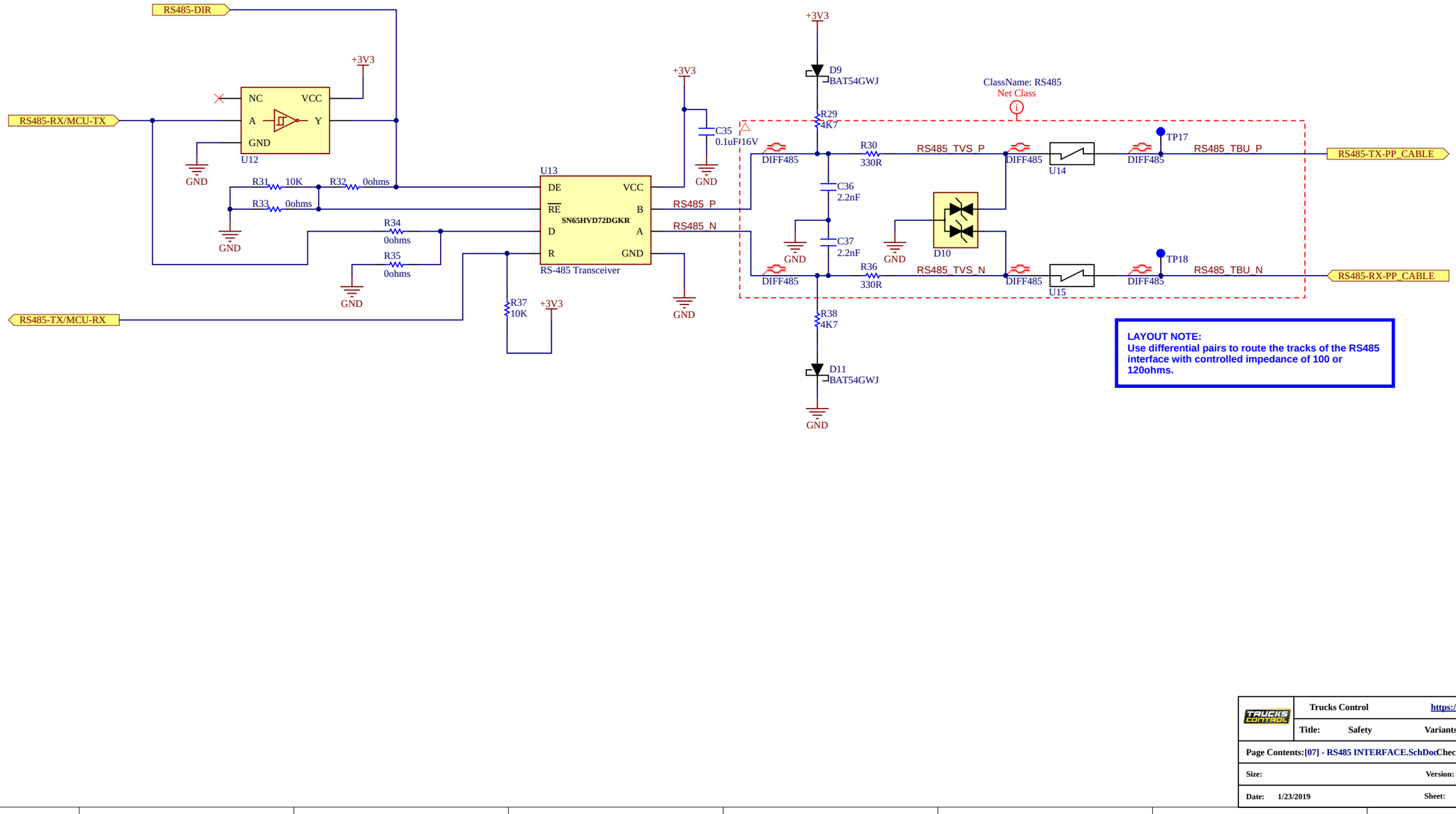
RS485 INTERFACE



LAYOUT NOTE:
Use differential pairs to route the tracks of the RS485 interface with controlled impedance of 100 or 120ohms.

Trucks Control			https://truckscontrol.com.br
Title: Safety		Variants:	[No Variations]
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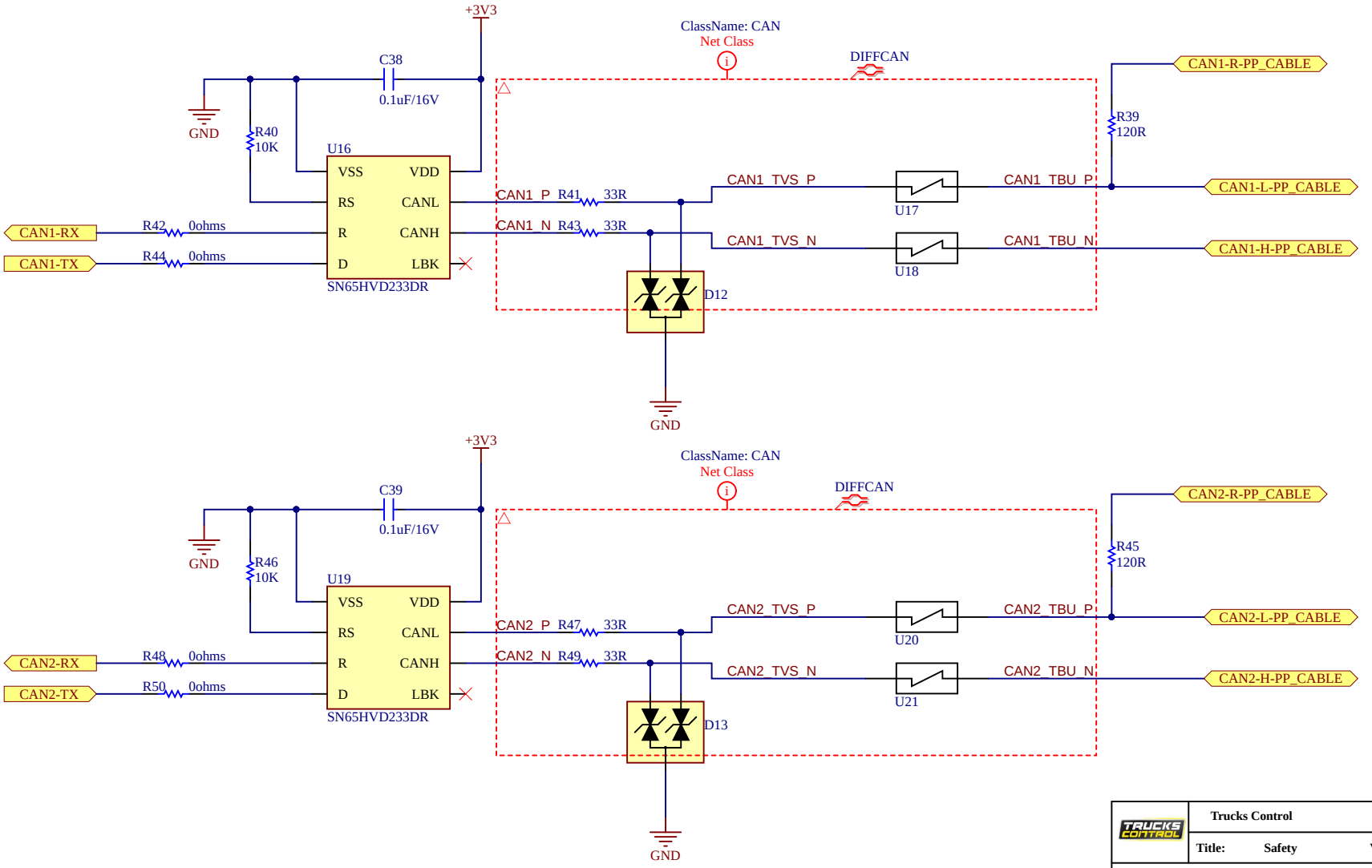
CAN INTERFACE



Trucks Control		https://truckscontrol.com.br	
Title:	Safety	Variants:	[No Variations]
Page Contents:	[08] - CAN INTERFACE.SchDoc	Checked by:	Alex Batista
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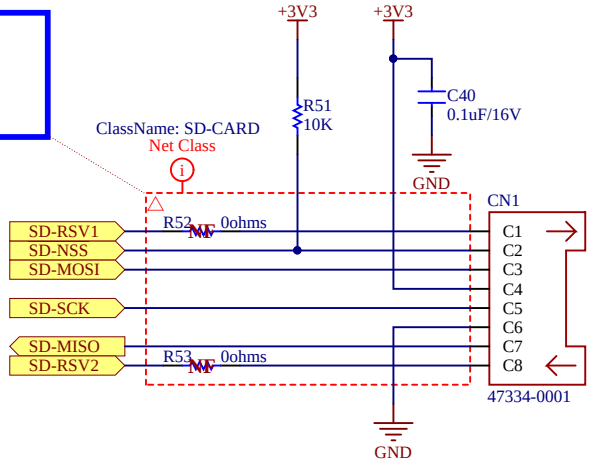
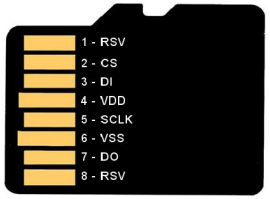
SD CARD

LAYOUT NOTE:
Keep the tracks of the SD Card connection as small as possible





(TOP VIEW)

Trucks Control		https://truckscontrol.com.br	
Title:	Safety	Variants:	[No Variations]
Page Contents:	[09] - SD CARD.SchDoc	Checked by:	Alex Batista
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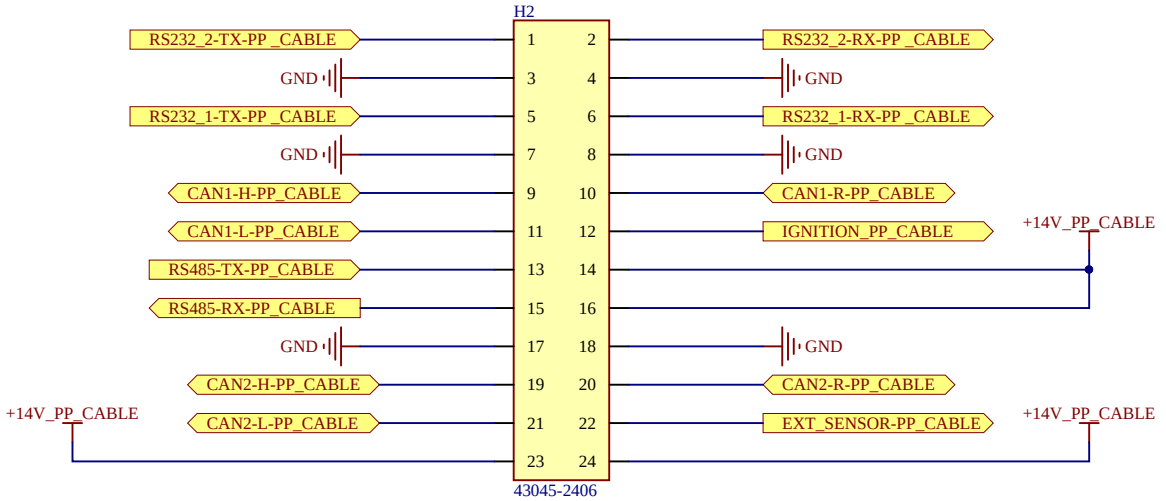
MICROFIT



Trucks Control		https://truckscontrol.com.br
Title: Safety	Variants:	[No Variations]
Page Contents: [10] - MICROFIT.SchDoc	Checked by:	Alex Batista
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REVISION HISTORY

1	2	3	4	5	6	7	8

	Trucks Control		https://truckscontrol.com.br
	Title: Safety	Variants:	[No Variations]
Page Contents:	[11] - REVISION HISTORY.SchDoc	Checked by:	Alex Batista
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SAFETY- SCHEMATIC

Designator
[01] - COVER PAGE.SchDoc

Designator
[02] - BLOCK DIAGRAM

Designator
[03] - IMU.SchDoc

Designator
[04] - MCU.SchDoc

Designator
[05] - POWER SUPPLY.SchDoc

Designator
[06] - RS232 INTERFACE.SchDoc

Designator
[07] - RS485 INTERFACE.SchDoc

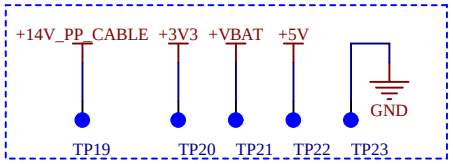
Designator
[08] - CAN INTERFACE.SchDoc

Designator
[09] - SD CARD.SchDoc

Designator
[10] - MICROFIT.SchDoc

Designator
[11] - REVISION HISTORY.SchDoc

TEST POINTS



FIDUCIALS

Trucks Control		https://truckscontrol.com.br	
Title: Safety		Variants: [No Variations]	
Page Contents: tc-pcb-safety_V1I1.SchDoc		Checked by: Alex Batista	
Size:		Version: P1	
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